

**CLASS 3 PERMIT MODIFICATION REQUEST
INCLUDING A REQUEST FOR TEMPORARY AUTHORIZATION FOR THE
HAZARDOUS WASTE MANAGEMENT ACT/RESOURCE CONSERVATION AND RECOVERY ACT
STORAGE AND TREATMENT PERMIT FOR THE
IDAHO NUCLEAR TECHNOLOGY AND ENGINEERING CENTER
LIQUID WASTE MANAGEMENT SYSTEM (VOLUME 14)
EPA ID# ID4890008952**

This document contains a Class 3 Permit Modification Request (PMR) including a Request for Temporary Authorization (RTA) for the Hazardous Waste Management Act (HWMA)/Resource Conservation and Recovery Act (RCRA) final Partial Permit for Storage and Treatment for the Idaho Nuclear Technology and Engineering Center (INTEC) Liquid Waste Management System (ILWMS) located at the Idaho National Laboratory (INL), hereinafter referred to as the ILWMS Volume 14 Permit.

The Department of Energy, Idaho Operations Office and CH2M•WG Idaho, LLC (CWI), collectively referred to as the Permittee, are submitting this document in accordance with the ILWMS Permit, Volume 14, Permit Condition I.P. and the Idaho Administrative Procedures Act (IDAPA) 58.01.05.012 [Title 40 of the Code of Federal Regulations (CFR) Section 270.42]. This PMR/RTA addresses addition of the treatment of liquid sodium-bearing waste and newly generated liquid waste using the Integrated Waste Treatment Unit (IWTU), storage of the waste treatment product prior to shipment for final disposition, and modification of the New Waste Calcining Facility, CPP-659, to act as part of the feed transfer system for the IWTU. This is a critical activity supporting other INL objectives as well as Idaho Settlement Agreement milestones. These modifications are proposed to:

- revise the permit to allow for steam reforming of liquid sodium bearing waste and newly generated liquid waste (X99) in the IWTU
- revise the permit to allow for new/additional storage of waste in tanks (S02)
- revise the permit to allow for new/additional storage of waste treatment product in containers (S01)
- revise the permit to allow for the treatment of waste in tanks (T01)
- remove permit conditions (II.Q.1.) describing activities that have been completed
- provide other administrative and informational changes or clarification to existing conditions
- correction of typographical errors
- update the Part A Permit Application.

The requested modification does not impede the ability of the Permittee to provide continued protection of human health and the environment.

This Class 3 PMR contains an RTA to allow IWTU facility site preparation and construction to begin in support of the accelerated project schedule, in that the request for a Class 3 permit modification, as described below, meets the criteria of IDAPA 58.01.05.012 [40 CFR § 270.42(e)(3)(ii)(A) and (C) through (E)] and ensures compliance with the standards identified in IDAPA 58.01.05.008 (40 CFR Part 264). Specifically, the RTA is necessary to enable the Permittee to:

- Facilitate timely implementation of activities supporting the closure of the INTEC Tank Farm Tanks;
- Prevent disruption of ongoing waste management activities that support completion of the Idaho Settlement Agreement milestone to complete treatment of the sodium bearing waste inventory managed under the ILWMS Volume 14 Permit by December 31, 2012;
- Enable the permittee to respond to changes in the types or quantities of the wastes managed under the facility permit as a result of tank rinsing/cleanout activities supporting closure; and
- Facilitate other changes to protect human health and the environment by removing liquid waste from the tanks and converting it to a granular solid for ease of storage and ultimate disposal.

The Permittee is requesting that the State of Idaho, Department of Environmental Quality (DEQ) approve the RTA by December 15, 2006.

As part of the clean copy distribution in accordance with permit condition I.D.5., after the PMR has been approved, all sections, attachments, appendices, forms, maps, diagrams, and drawings will be updated to their newest revision.

I. IDAPA 58.01.05.012 [40 CFR § 270.42(c)(1)(i - iii)], Describes the exact change to be made to the permit conditions and supporting documents referenced by the permit, identifies that the modification is a Class 3 modification, and explains why the modification is needed:

This PMR is a Class 3 modification to the ILWMS Volume 14 Permit. Attachment A of this PMR contains revisions for the Volume 14 Permit (shown in redline/strikeout fonts (highlighted new text and revision sidebar in the margin) that provides the exact changes to be made to the permit. The major revisions are described in more detail below.

Include IWTU to permit steam reforming of liquid waste

This PMR proposes the inclusion of a steam reforming process to treat sodium bearing waste and newly generated liquid waste generated or stored at the INTEC and modification of the blend and hold tanks at the CPP-659 to act as part of the feed transfer system for the IWTU. Miscellaneous treatment capacity was added to the Part A for the treatment of the liquid waste. In addition, revised pages for Module V of the Permit, Attachments 1, 2, 3, 4, 5, 6, 7, 8, and 9, to add this treatment system.

Include additional storage of waste in tanks to support operation of the IWTU

Additional tank storage capacity was added to facilitate the operation of the IWTU. Capacity was added to the Part A for the storage of the liquid waste. In addition, revised pages for Module III of the Permit, and Attachments 1, 2, 3, 4, 5, 6, 7, 8, and 9 to allow storage.

Revise the Part A for the ILWMS

The IWTU was added as a new miscellaneous treatment unit. The overall treatment and storage capacity of the ILWMS was increased to account for tank systems associated with the IWTU.

Include additional storage of waste in containers to support operation of the IWTU

New container storage was added to facilitate the operation of the IWTU. Capacity was added to the Part A for the storage of the treatment product in canisters within concrete vaults. Revised pages for Module III of the Permit and Attachments 1, 2, 3, 4, 5, 6, 7, 8, and 9, to add this container storage.

Modification is a Class 3 modification

The Permittee has determined that the addition of the IWTU and storage tanks is a Class 3 modification to the Volume 14 final Partial Permit per IDAPA 58.01.05.012 [40 CFR § 270.42(c)].

II. IDAPA 58.01.05.012 [40 CFR § 270.42(c)(1)(iv)], provides the applicable information required by 40 CFR §§ 270.13 through 270.22, 270.62, 270.63, and 66:

The following list identifies the location of information required per IDAPA 58.01.05.012 [40 CFR § 270.42(c)(1)(iv)].

IDAPA 58.01.05.012	(40 CFR § 270.13)	See Attachment A
IDAPA 58.01.05.012	(40 CFR § 270.14)	See Attachment A
IDAPA 58.01.05.012	(40 CFR § 270.15)	See Attachment A
IDAPA 58.01.05.012	(40 CFR § 270.16)	See Attachment A

IDAPA 58.01.05.012	(40 CFR § 270.17)	Not Applicable
IDAPA 58.01.05.012	(40 CFR § 270.18)	Not Applicable
IDAPA 58.01.05.012	(40 CFR § 270.19)	Not Applicable
IDAPA 58.01.05.012	(40 CFR § 270.20)	Not Applicable
IDAPA 58.01.05.012	(40 CFR § 270.21)	Not Applicable
IDAPA 58.01.05.012	(40 CFR § 270.22)	Not Applicable
IDAPA 58.01.05.012	(40 CFR § 270.23)	See Attachment A
IDAPA 58.01.05.012	(40 CFR § 270.62)	Not Applicable
IDAPA 58.01.05.012	(40 CFR § 270.63)	Not Applicable
IDAPA 58.01.05.012	(40 CFR § 270.66)	Not Applicable

III. IDAPA 58.01.05.012 [40 CFR § 270.42(c)(3)]:

A copy of this PMR has been placed in the DOE-ID Public Reading Room located at University Place, 1776 Science Center Drive, Idaho Falls, Idaho and is available for public viewing and copying. Ms. Gail Willmore can be contacted by telephone at (208) 526-9162 for assistance in accessing the DOE-ID Public Reading Room.

IV. IDAPA 58.01.05.012 [40 CFR § 270.42(c)(4)]

The required public meeting for this PMR is projected to occur on or about September 20, 2006. The meeting will be held no earlier than 15 days after the publication of the notice of modification and no later than 15 days before the close of the 60-day comment period. Specific information addressing this meeting is included in the notice mailed to all persons on the official mailing lists and was published in the Legal Notice, in accordance with IDAPA 58.01.05.012 [40 CFR § 270.42(c)(2 and 4)].

A copy of the notification, a copy of the official mailing list and evidence of mailing is provided in Attachment B of this PMR.

A Legal Notice was published in the Idaho Falls Post Register, as required by IDAPA 58.01.05.012 [40 CFR § 270.42(c)(2)]. Attachment C provides evidence of publication in the form of a notarized copy of the Legal Notice, provided by the Idaho Falls Post Register.

V. IDAPA 58.01.05.012 [40 CFR § 270.42(c)(5)]

The required 60-day public comment period for this PMR began on the publication date of the Legal Notice in the Idaho Falls Post Register in accordance with IDAPA 58.01.05.012 [40 CFR § 270.42(c)(5)].

VI. IDAPA 58.01.05.012 [40 CFR § 270.11(d) and 40 CFR § 270.30(k)]

Attachment D of this PMR contains the signed certification statements required by Permit Condition I.W. in accordance with IDAPA 58.01.05.012 [40 CFR §§ 270.11(d) and 270.30(k)].

VII. IDAPA 58.01.05.013 [40 CFR § 124.31]

Per DEQ request, a public participation meeting was completed on June 7, 2006 prior to submittal of this PMR. The required information for the public participation process (public notice and affidavit of publication, letter to the mailing list and evidence of mailing, and summary and sign-in sheets from the public meeting) is included as Attachment E.

ATTACHMENT A
REVISIONS OF THE VOLUME 14 PERMIT

ATTACHMENT B
PUBLIC NOTICE AND MEETING FOLLOWING SUBMITTAL

ATTACHMENT C
PUBLISHED LEGAL NOTICE

ATTACHMENT D
PERMIT MODIFICATION REQUEST CERTIFICATION

ATTACHMENT E
PUBLIC PARTICIPATION MEETING